GREAT BRITAIN has accepted the proposal of the United States for an international conference on the question of pelagic sealing in the Bering Sea, to be held in Washington during the coming autumn.

THE fourth congress for the study of tuberculosis will be held at Paris during the last week of July, 1898, under the presidency of M. Nocard. The following four questions are proposed for discussion: Sanitaria for consumptives, serums and toxins, the X-rays in diagnosis and treatment, and tuberculosis in the lower animals.

IN connection with the Brussels Exposition, there will be held, from August 9th to 14th, a Congress of Hygiene and Medical Climatology of Belgium and the Congo.

AT the last monthly general meeting of the London Zoological Society it was reported that the additions to the Society's menagerie during the month of June had amounted to 178. Special attention was called to two fine adult King Penguins (*Aptenodytes pennanti*) purchased on June 23d, and a young female Orang-outang (*Simia satyrus*), brought home from Sumatra, and presented by Dr. H. Dohrn, on June 30th.

MRS. VIRGINIA MONROE has given $30,000 to the Pequot Library Association, the building of which was the gift of the late Albert B. Monroe.

MR. ANDREW CARNEGIE has offered the town of Stirling, Scotland, the sum of £6,000 for a public library building.

THE issue of *Nature* for July 15th contains an appreciative review, by Professor A. G. Greenhill, of the text-book of higher mathematics edited by Professors Merriman and Woodward: "This is a style of mathematical treatise to which we are not accustomed in this country, from the luxury of the print and size of page, as well as for the refreshing novelty and interest of the contents. Till recently it was thought that the study of mathematics was not likely to flourish in America as *trop vieux jeu* by the side of the new physical and biological sciences. To-day, however, it is the American student who is the most enthusiastic follower of recent mathematical development, while we in this country are being left far behind. * * * * * The account, given by the editors in the preface, of the work expected of the average American student, shows that the standard of requirement is much higher than in this country and not hampered by traditional prejudice."

THE anatomical departments of the *Journal of Anatomy and Physiology* will hereafter be edited by Professors Turner, MacAlister, Cunningham and Thane. Professor M'Kendrick will continue to edit the physiological department.

UNIVERSITY AND EDUCATIONAL NEWS.

THE University of London Bill has been introduced into the House of Lords by the Duke of Devonshire and has been read for the second time.

THE United States Circuit Court at Baltimore, on July 29th, handed down a decision that the Johns Hopkins University and other holders of first preferred 6 per cent. stock of the Baltimore and Ohio Railroad are not preferred creditors. The trustees of the University hold nearly $2,000,000 of the preferred stock, bequeathed by the founder of the University, the late Johns Hopkins, and this decision, if upheld by the higher Courts, will seriously and permanently curtail the income of the University.

AS was stated in this JOURNAL last autumn, it is proposed to draw up plans for buildings such as the University of California hopes ultimately to erect. We fear, however, that the sum of $4,000,000, which the daily papers report to have been subscribed for the erection of these buildings, has not as yet been secured.

IT is reported in the daily paper that Dr. E. Benjamin Andrews, who resigned the presidency of Brown University for reasons given in our last issue, has accepted the presidency of a new 'university' to be founded by Mr. John Brisben Walker, proprietor and editor of the *Cosmopolitan Magazine*, and to be known as the 'Cosmopolitan University.' It is to be modelled after the Chautauqua School and to be conducted by correspondence.

PROFESSOR HENRY KRAEMER, of the Northwestern University, has been called to the chair of botany and microscopy in the Philadelphia College of Pharmacy, and Dr. Albert

Schneider, Ph.D. (Columbia), has been called to the chair in Northwestern University vacant through the resignation of Professor Kraemer.

Dr. L. Schlesinger, of Bonn, has been appointed full professor of mathematics at Klausenburg; Dr. Detmer, associate professor of botany in the University of Jena, has been promoted to a full professorship; Dr. Lassar Cohn, professor of chemistry in the University at Königsberg, has been elected director of the Liebig Akademie of Munich; Dr. A. O. Kihlman has been appointed associate professor of botany at Helsingfors, and Dr. G. J. Ptaschicky, professor of zoology in St. Petersburg; Dr. F. v. Luschan, docent in the University of Berlin, has been promoted to a professorship of anthropology; Dr. Seelhorst, director of the Agricultural Experiment Station at Göttingen has accepted a professorship in the Agricultural College at Hohenheim.

DISCUSSION AND CORRESPONDENCE.

COLOR STANDARDS.

It is a matter for congratulation that the subject of color standards and definitions has been brought before the public for discussion in Science* Education in any branch of knowledge becomes simple and successful in proportion as its terminology is definite and intelligible. It would be quite interesting to set forth the plans that have been offered for obtaining color standards; one proposes to take an orange as the type of that color, and in like manner to let a lemon, an olive, etc., be the ultimate definition of those hues. One has even suggested a collection of wines of various colors as standards, and the matching of other colors by mixing the wines, an operation as dangerous as it is unscientific.

In the search for standards we must first be able to define completely a colored surface; not by saying that it resembles or differs to a certain extent from some other arbitrary surface, but it must be defined in terms of certain invariable and readily reproducible standards.

To describe completely a surface we must give value to four factors which go to affect the impression which it produces upon the normal observer: First, the predominating wave-length or wave-lengths of the light coming from it; second, its total luminosity, as compared with some standard; third, its saturation, or the ratio of the colored light to the total luminosity; fourth, its texture.

The matter of texture may be eliminated by placing the surface far enough from the eye, or, better, by rotating it so rapidly that the eye cannot distinguish the texture; consequently a standard of texture is unnecessary. A standard of total luminosity is easily obtained by holding a cold surface over burning magnesium or zinc; the coating of oxide thus produced has been adopted as 'white' by Rood, Mayer and others. In other words, the luminosity of such a surface is taken as 100 %. A box about five feet in length and one in cross-section, lined with black velvet and provided with an opening about four inches in diameter in one end, when so mounted that light cannot shine directly into the opening, will furnish an admirable standard black, or 0 % luminosity. Between these two extremes fall all surfaces not incandescent. White cardboard and lamp-black form very convenient 'practical units,' and their relation to the standards can at any time be easily and accurately determined. The question of saturation, or the ratio of the energy of the predominating characteristic wave-lengths to the total visible energy, is serious. In fact, for the present we must be satisfied to agree upon some temporary standards which may ultimately be absolutely determined.

As to the predominating or characteristic wave-length or wave-lengths we might, of course, refer everything to the spectrum and define by it directly, but it would be a very elaborate and inconvenient method. It is, however, customary to adopt a few typical wave-lengths and define by combinations of these. Theoretically three such colors are sufficient, but practical convenience makes it desirable to have five or six. Then a mixture of these, with the addition of black and white when necessary, enable the observer to match any color, shade, tint or hue.

What shall govern the choice of the five or six working standards? Of course, we expect red, green and blue; probably yellow, and pos-

* See article in Science, July 16, p. 89.